

# PATENT ABSTRACTS OF JAPAN

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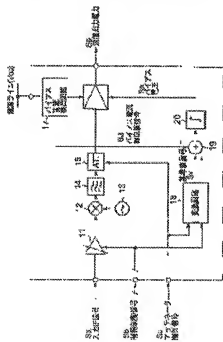
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## (54) TRANSMISSION POWER CONTROLLER CAPABLE OF CONTROLLING OPTIMIZATION OF BIAS CURRENT OF TRANSMISSION OUTPUT AMPLIFIER

(57)Abstract:

**PROBLEM TO BE SOLVED:** To remarkably variably control transmission power like in a mobile terminal used in a CDMA mobile communication system and to extend the communication time in the mobile terminal using a battery for power source.

**SOLUTION:** An IF signal Sa is variably amplified, attenuated, frequency-converted and band-restricted through a variable gain IF amplifier 11, a mixer 12, a local oscillator 13, a BPF 14 and a step attenuator 15 and is inputted to a power amplifier (FET) 16. A bias current measurement value signal Sd detected by a bias current detecting circuit 17 is subtracted (negative feedback loop) from a reference value signal Sc with which a conversion circuit 18 generates from a gain control signal Sb and an attenuator control signal Sc, and bias voltage Sn integrated by an integrator 20 is outputted to the power amplifier 16. The



power amplifier 16 transmits transmission output power Se corresponding to the bias current point of the bias voltage Sn.